Standby 1600 kVA
Diesel Genarating Sets

APD 1600J

Engine : Aksa
Alternator : Mecc Alte
Control System : P 732 control system

This generator set is available with CE certification.

¢ëkëĸ G¿c¿, 3-Fazlë, 50Hz, GF 0,8

	Standby Rating (ESP)		Prime Rating (PRP)		
Voltage	kVA	kW	kVA	kW	Amp
400/230	1600,00	1280,00	1450,00	1160,00	2092,00

Standby Rating (ESP): Applicable for supplying power to varying electrical load for the duration of power interruption of a reliable utility source. ESP is in accordance with ISO 8528. Overload is not allowed.

Prime Rating (PRP): Applicable for supplying power to varying electrical load for unlimited hours. PRP is in accordance with ISO 8528. 10 % overload capability is available for a period of 1 hour within 12-hour perod of operation,in accordance with ISO 3046.

STANDARD SPECIFICATIONS

Heavy duty, water cooled diesel engine
46/50 °C ambient rated radiator with mechanical fan
Protective grille for fan and rotating parts
Electric starter and charge alternator
Starting battery (with lead acid) including rack and cables
Engine jacket cooling heater
Steel base frame and anti-vibration isolators
Spare Fuel Tank
Flexible fuel connection hoses
Single bearing, class H alternator
Industrial exhaust silencer and steel belows supplied separately
Static battery charger
Manual for use and installation

OPTIONAL EQUIPMENTS

ENGINE

- Remote Radiator Cooling
- Fuel-Water Seperator Filter

ALTERNATOR

- Anti-Condensation Heater
- Main line circuit breaker

CONTROL SYSTEM

- Remote annunciator panel
- Main Fuel Tank

OTHER ACCESSORIES

- Automatic or manual fuel filling system
- Manual oil drain pump
- Low and high fuel level alarm
- Residential silencer
- Enclosure: weater protective or sound attenuated
- Duct adapter (on radiator)
- Inlet and outlet motorised louvers

TRANSFER SWITCH

- Four Pole Contactor

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DIESEL ENGINE SPECIFICATIONS

Manufacturer		Aksa		
Model		A12V190ZL		
No. of Cylindirs and Build		12-cylinder, V - Type		
Aspiration and Cooling		Turbo Charged and Search Refrigerated		
Total Displacement	L	73,15		
Bore and Stroke	mm	190 x 215		
Compression Ratio		14,5:1		
Rated Speed (rpm)	rpm	1500		
Governor		Electronic		
Oil Capacity	L	250,00		
Coolant Capacity	L	470,00		
Intake Air Flow	m³ /min.	132,00		
Radiator Cooling Air	m³ /min.	2100		
Exhaust Gas Flow	m³ /min.	285,00		
Exhaust Gas Tempratures	° C	600		
Start System		24 V d.c.		
Fuel Consumption	Load	%100	%75	%50
	L/h	296,00	228,00	159,00

ALTERNATOR SPECIFICATIONS

Make		Mecc Alte
Frequency	Hz	50
Design		Brushless, 4 poles
Cos Phi		0,80
Phase		3
Voltage	V	400/230
Current	A	0
Insulation Class		H
Temperatur		H
Stator		2 / 3 adım
Rotor		Single Bearing System, Flexible Disc
Excitation System		Electronic (AVR)

DIEMENSIONS AND WEIGHT

Open Type	Dry Weight	Lenght	Width	Height	Tank Capacity
	kg.	mm.	mm.	mm.	L
APD 1600J	16000	5550	2100	2600	2000

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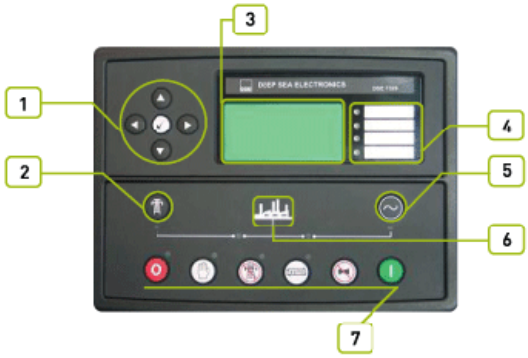
P 732 control system - Control System



1. Menu navigation buttons
2. Close mains button
3. Main Status and instrumentation display
4. Alarm LED's
4. Close generator button
5. Status LED's
7. Operation selecting buttons

Devices

DSE, model 7320 Auto Mains Failure control module
Static battery charger 5A, 220/240 volt
Emergency stop push button and fuses for control circuits

Construction and Finish

Comonents installed in sheet steel enclosure. Phosphate chemical, pre-coating of steel provides corrosion resistant surface
Polyester composite powder topcoat forms high gloss and extremely durable finish
Lockable hinged panel door provides for easy component access

Installation

Control panel is mounted generating set baseframe on robust steel stand or power module.
Located at side of generating set with properly panel visibility.

Generating Set Control Unit

The DSE 7320 conrol module is a standard addition to our generator sets from 250kVA upwards and ît have been designed to start and stop diesel andgas generating sets that include electronic and non electronic engines. The DSE 7320 includes the additional capability of being able to monitor a mains (utility) supply and is therefore suitable for controlling a standby generating set in conjunction with an automatic transfer switch.The DSE7320 also indicates operational status and fault conditions, automatically shutting down the generating set and indicating faults by means of its LCD display on the front panel.

Standard Specifications

Microprocessor controlled
132 x 64 pixel LCD display makes information easy to read
Front panel programming and also via PC software
Soft touch membrane keypad and five key menu navigation
Remote communications via RS232, RS485 and ethernet and SMS messaging
Event logging (50) showing date and time
Multiple date and time engine exercise mode and maintenance scheduler

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Instruments

ENGINE
Engine speed
Oil pressure
Coolant temperature
Run time
Battery volts
Engine maintenance due
GENERATOR
Voltage (L-L, L-N)
Current (L1-L2-L3)
Frequency
Earth current
kW
Pf
kVAr
kWh, kVAh, kVArh
Phase sequence
MAINS
Voltage (L-L, L-N)
Frequency

Protection Circuits

WARNING
Charge failure
Battery under voltage
Fail to stop
Low fuel level (opt.)
kW over load
Negative phase sequence
PRE-ALARMS
Low oil pressure
High engine temperature
Low engine temperature
Over /Under speed
Under/over generator frequency
Under/over generator voltage
ECU warning
SHUT DOWNS
Fail to start
Emergency stop
Low oil pressure
High engine temperature
Low coolant level
Over /Under speed
Under/over generator frequency
Under/over generator voltage
Oil pressure sensor open
Phase rotation
ELECTRICAL TRIP
Earth fault
kW over load
Generator over current
Negative phase sequence

Options

High oil temperature shut down
Low fuel level shut down
Low fuel level alarm
High fuel level alarm
EXPANSION MODULES
Editional LED module (2548)
Expension relay module (2157)
Expansion input module (2130)

Standards

Elecrical Safety / EMC compatibility
BS EN 60950 Electrical business equipment
BS EN 61000-6-2 EMC immunity standard
BS EN 61000-6-4 EMC emission standard

Static Battery Charger

Battery charger is manufactured with switching-mode and SMD technology and it has high efficincy.
Battery charger models' output V-I characteristic is very close to square and output is 5 amper, 24 volt DC. Input 198 - 260 volt AC. 2405 has fully output shot circuit protection and it can be used as a current source.
2405 charger has high efficiency, long life, low failure rate, light weight and low heat radiated in accordance with linear alternatives.
The charger is fitted with a protection diode across the output. Charge fail output is available. Connect charge fail relay coil between positive output and CF output.